The real cost of vascular access complications

Up to 90% of hospital in-patients require intravenous (IV) therapy and yet around 35–50% of IV catheters don't meet their intended dwell time, **largely due to complications.**[1]

Did you know that **IV complications and practice variations** can have a **huge impact on your patients**, as well as on you directly?

The standardisation of policies and procedures, based on compliance to evidence-based best practice, improves the **quality of care and patient safety**.

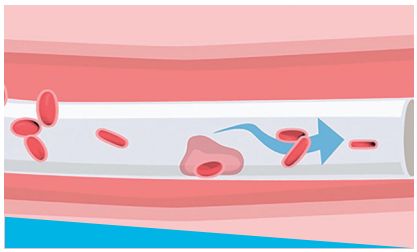
Inconsistent and suboptimal practices, as well as a **lack of standardisation in vascular access**, can contribute to:[1]

Phlebitis

Training and experience plays a role in significantly higher first-time insertion rate success, decreasing the incidence of phlebitis.[1]

Early signs of inflammation include **pain, edema and erythema,** and the most severe form, thrombophlebitis. Phlebitis rates have been shown to be **between 14.7% and 16.1%** across studies.[1]

Patients who experience phlebitis with a catheter are **5.1 times more likely to develop phlebitis** in a subsequent catheter.[1]



Occlusion

Occlusion can occur due to mechanical function, or from thrombosis of the catheter and/or the surrounding vessel. **Occlusion rates range from 2.5% to 32.7%**.[1]

The type of catheter used (material and diameter), along with flushing, as well as problems related to the use of connection devices and other ancillary equipment, can affect occlusion rates.[1]

Bacteremia

Also known as **catheter related bacterial bloodstream infection (CR-BSI)**, one of the most frequent, costly, and potentially life-threatening complications of central venous catheterisation.[1]

They account for up to **20% of healthcare associated infections (HAIs)**, a potentially life-threatening complication from a routine procedure.[2]

Thrombosis

Thrombosis can be caused by a **blood clot within the catheter** or the vessel which may cause occlusion, leading to inflammation, biofilm formation and infection.[1]

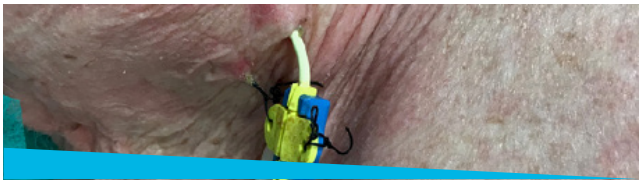
Infiltration

One of the most common complications[1] can result in **erosion or penetration of the catheter** into or through the venous wall, which can lead to infusion of fluids and/or medications into the surrounding the soft tissues.[1]

It can also result from loss of surrounding venous wall integrity due to inflammation caused by trauma, caustic or other chemical injury by infusate, needle injury, or poor vessel integrity of the patient.[1]

Extravasation

A subgroup of Infiltration of a vesicant infusate that can lead to extensive soft tissue injury and loss with devastating results.[1]



Dislodgment

Reasons for unintentional removal of a catheter can range from inadequate securement to catheters inadvertently catching on clothing or surrounding structures. **Dislodgment can be attributed to up to 50% of catheter restarts**.[1]

While some of these complications may sound minor, they can **cause a patient pain and discomfort** and could **potentially extend their length of stay in the hospital**.[1] When vascular access-related complications are severe they can be potentially lethal.[3]

Did you know how common these complications can be? Hospitals have been shown to experience complication rates **as high as 62%** as a result of improper vascular access selection and care.[4]

Catheter related infections account for up to **20% of healthcare associated infections (HAIs)**, a potentially life-threatening complication from a routine procedure.[2]

HAIs are the most common cause of preventable harm in hospital, affecting one in twenty European patients[5,6] (**3.2 million patients**[7]), which result in triple the length of stay in hospital and almost doubles the rate of patient readmission.[8]

Complications can also impact your time as you care for your patients by being disruptive to the workflow. Appropriate vascular access and compliance to evidence-based best practices can help to ensure your own safety in the workplace:[9,10]

~90% **decrease blood or fluid leakage** from insertion sites[10]

61% **decline** in **blood exposure**[10]

You are playing a key role in helping to improve patient outcomes and reduce the number of patients experiencing complications from vascular access issues:

1. by **making your colleagues aware** of the possible risks related to suboptimal practice in vascular access care

2. and **encouraging your hospital** to take actions to prioritise better care for patients

By embracing the **complexity** and **championing best practice vascular access care** in your hospital, you are helping your patients receive **better care.**

Champion of Change

Because you are a **Champion of Change,** you can advocate for **better vascular access** in your hospital.

Contact a BD representative to learn more about how BD can help your hospital support best practices and efficiencies in vascular access.

Contact a BD representative

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